Table 1: Adult Medical - Surgical Critical Care Units
Central Line Associated Bloodstream Infection (CLABSI)
Standardized Infection Ratio (SIR) Table
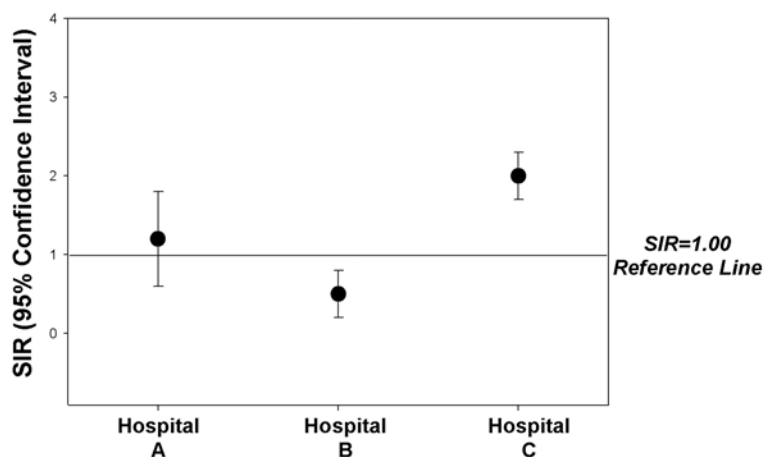**July 1, 2007 – November 30, 2008**

See <u>Definition of Terms</u> at the <u>Healthcare Acquired Infections Report</u> website for a more in-depth explanation of Standardized Infection Ratios.

<u>Standardized Infection Ratio:</u> The Standardized Infection Ratio (SIR) is a summary measure used to compare the central line associated bloodstream infection (CLABSI) experience among a group of reported locations to that of a standard population. It is the *observed* number of infections divided by the *expected* number of infections.

For HAI reports, the standard population comes from NHSN data reported from all hospitals using the system. "Expected" *is based on historical data for those procedures at the national level.

<u>Confidence Intervals (CIs)</u>
Because we can never obtain a hospital's true "population" data (e.g. all patients for all time), we use statistical procedures to "estimate" various measurements using "sample" data. Since estimates have "variability" we use 95% confidence limits (or intervals) to describe the variability around the estimate. The confidence interval (CI) gives us the range within which the TRUE value will fall 95% of the time, assuming that the sample data are reflective of the true population.   Below is a graphical example of what CIs would look like if they were in graph form.

Graph Interpretation:
Hospital A: If the 95% confidence interval <u>crosses over the reference line of 1.0</u>, we conclude that the hospital's infection rate is similar (not significantly different) from "expected" (predicted).

Hospital B: If the 95% confidence interval <u>falls completely below the reference line of 1.0</u>, we conclude that the hospital's infection rate is significantly lower than "expected" (predicted).

Hospital C: If the 95% confidence interval <u>falls completely above the reference line of 1.0</u>, we conclude that the hospital's infection rate is significantly higher than "expected" (predicted).

All conclusions are based on the assumption that the hospital's patient population is similar to the NHSN pooled patient population.

*Please note that the "expected" number of infections does not mean that you expect to get an infection when you go into the hospital for surgery. **The goal is for the hospital is to prevent all HAIs.**

Central Line Associated Bloodstream Infection (CLABSI) Standardized Infection Ratio (SIR)
Table 1

Statewide

Location: Adult Medical/Surgical Critical Care Unit

Reportable Period: July 2007 – November 2008

Hospital	Observed No. Of CLABSI	No. of Central Line Days*	Statistically "Expected" No. of CLABSI[‡]	Comparison to Standard Population SIR = 1 (Observed = "Expected")			
				Hospital SIR = Observed "Expected"	95% Confidence Interval (CI)		Statistical Interpretation[†]
					Lower	Upper	
Abbeville Area Medical Center	0	113	0.2	0.00	0.00 -	21.76	Not Different
Aiken Regional Medical Center	13	4967	7.5	1.74	0.93 -	2.98	Not Different
AnMed Health Medical Center	7	4259	6.4	1.10	0.44 -	2.26	Not Different
Barnwell County Hospital	*	24	*	*	* -	*	*
Bon Secours - St. Francis Xavier Hospital	4	1952	2.9	1.37	0.37 -	3.50	Not Different
Cannon Memorial Hospital	0	139	0.2	0.00	0.00 -	17.69	Not Different
Carolina Pines Regional Medical Center	3	868	1.3	2.30	0.48 -	6.73	Not Different

Hospital	Observed No. Of CLABSI	No. of Central Line Days*	Statistically "Expected" No. of CLABSI[‡]	Comparison to Standard Population SIR = 1 (Observed = "Expected")			
				Hospital SIR = Observed "Expected"	95% Confidence Interval (CI)		Statistical Interpretation[†]
					Lower	Upper	
Chester Regional Medical Center	0	166	0.2	0.00	0.00 -	14.82	Not Different
Chesterfield General Hospital	0	109	0.2	0.00	0.00 -	22.56	Not Different
Coastal Carolina Medical Center	0	115	0.2	0.00	0.00 -	21.39	Not Different
Colleton Medical Center	6	964	1.4	4.15	1.52 -	9.03	Higher
Conway Medical Center	1	818	1.2	0.81	0.02 -	4.54	Not Different
East Cooper Regional Medical Center	3	630	0.9	3.17	0.66 -	9.28	Not Different
Greenville Memorial Hospital	31	6477	13.0	2.39	1.63 -	3.40	Higher
Greer Memorial Hospital	0	219	0.4	0.00	0.00 -	8.38	Not Different
Hampton Regional Medical Center	0	31	0.0	0.00	0.00 -	79.33	Not Different
Hillcrest Memorial Hospital	0	557	0.8	0.00	0.00 -	4.42	Not Different
Hilton Head Regional Medical Center	5	1156	1.7	2.88	0.94 -	6.73	Not Different

Hospital	Observed No. Of CLABSI	No. of Central Line Days*	Statistically "Expected" No. of CLABSI[‡]	Comparison to Standard Population SIR = 1 (Observed = "Expected")			
				Hospital SIR = Observed/"Expected"	95% Confidence Interval (CI)		Statistical Interpretation[†]
					Lower	Upper	
Kershaw County Medical Center	4	866	1.3	3.08	0.84 -	7.88	Not Different
Laurens County Healthcare System	1	346	0.5	1.93	0.05 -	10.74	Not Different
Lexington Medical Center	7	4644	7.0	1.00	0.40 -	2.07	Not Different
Loris Healthcare System	0	1016	1.5	0.00	0.00 -	2.42	Not Different
Marion County Medical Center	2	174	0.3	7.66	0.93 -	27.68	Not Different
Marlboro Park Hospital	0	190	0.3	0.00	0.00 -	12.94	Not Different
Mary Black Memorial Hospital	1	1118	1.7	0.60	0.01 -	3.32	Not Different
McLeod Medical Center - Dillon	0	94	0.1	0.00	0.00 -	26.16	Not Different
Oconee Memorial Hospital	0	1217	1.8	0.00	0.00 -	2.02	Not Different
Palmetto Baptist Medical Center - Easley	1	698	1.0	0.96	0.02 -	5.32	Not Different

Hospital	Observed No. Of CLABSI	No. of Central Line Days*	Statistically "Expected" No. of CLABSI[‡]	Comparison to Standard Population SIR = 1 (Observed = "Expected")			Statistical Interpretation[†]
				Hospital SIR = Observed "Expected"	95% Confidence Interval (CI)		
					Lower	Upper	
Palmetto Health Baptist	8	2553	3.8	2.09	0.90 -	4.12	Not Different
Piedmont Medical Center	7	2880	4.3	1.62	0.65 -	3.34	Not Different
Providence Hospital Downtown	0	2562	3.8	0.00	0.00 -	0.96	Lower
Providence Hospital Northeast	0	240	0.4	0.00	0.00 -	10.25	Not Different
Regional Medical Center Of Orangeburg/Calhoun Counties	16	3335	5.0	3.20	1.83 -	5.19	Higher
Roper Hospital Inc.	12	5823	8.7	1.37	0.71 -	2.41	Not Different
Springs Memorial Hospital	3	1121	1.7	1.78	0.37 -	5.21	Not Different
St. Francis - Downtown	0	4628	6.9	0.00	0.00 -	0.53	Lower
Summerville Medical Center	1	750	1.1	0.89	0.02 -	4.95	Not Different
Trident Medical Center	22	7404	11.1	1.98	1.24 -	3.00	Higher
Tuomey	1	1891	2.8	0.35	0.01 -	1.96	Not Different
Upstate Carolina Medical Center	0	331	0.5	0.00	0.00 -	7.43	Not Different
Village Hospital	*	13	*	*	* -	*	*

Hospital	Observed No. Of CLABSI	No. of Central Line Days*	Statistically "Expected" No. of CLABSI‡	Comparison to Standard Population SIR = 1 (Observed = "Expected")		
				Hospital SIR = Observed "Expected"	95% Confidence Interval (CI) Lower Upper	Statistical Interpretation†
Wallace Thomson Hospital	0	161	0.2	0.00	0.00 - 15.28	Not Different

†   SC Hospital SIR Statistical Interpretation
- o   Similar = Statistically not different than the standard population
- o   Lower = Statistically lower than the standard population
- o   Higher = Statistically higher than the standard population

‡   Please note that the "expected" number of infections does not mean that you expect to get an infection when you go into the hospital for surgery. The goal is for the hospital is to prevent all HAIs.

∗   Too few central line days. Reporting on too few procedures is a risk to patient confidentiality. If there are twenty-five (25) or fewer central line days, the report for the number of infections will be deferred until there are more central line days.